

Welcome!

2023 PROJECT PEER REVIEW



U.S. DEPARTMENT OF ENERGY
BIOENERGY TECHNOLOGIES OFFICE

2023 BETO Peer Review

Peer Review Introduction

Joshua Messner, Technology Manager

Peer Review Chair

April 3, 2023



Feedstock



Algae



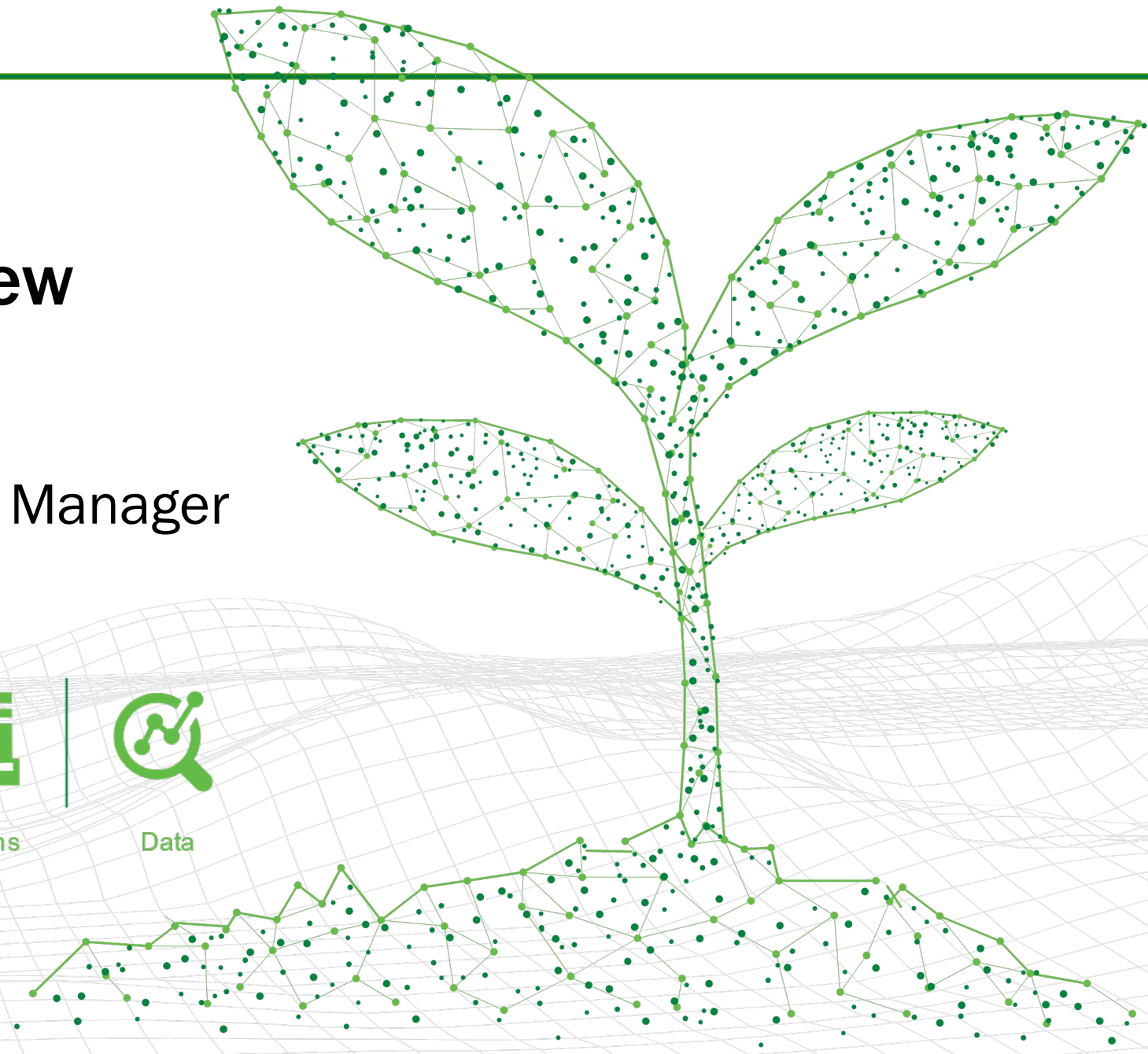
Conversion



Systems



Data

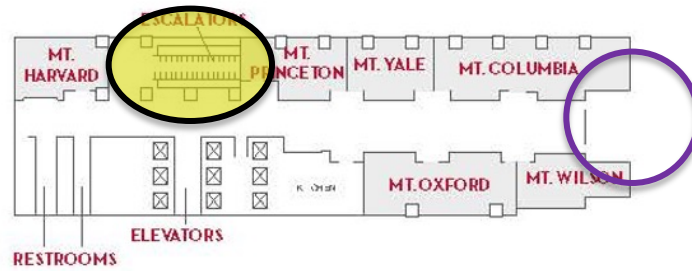


Safety Minute

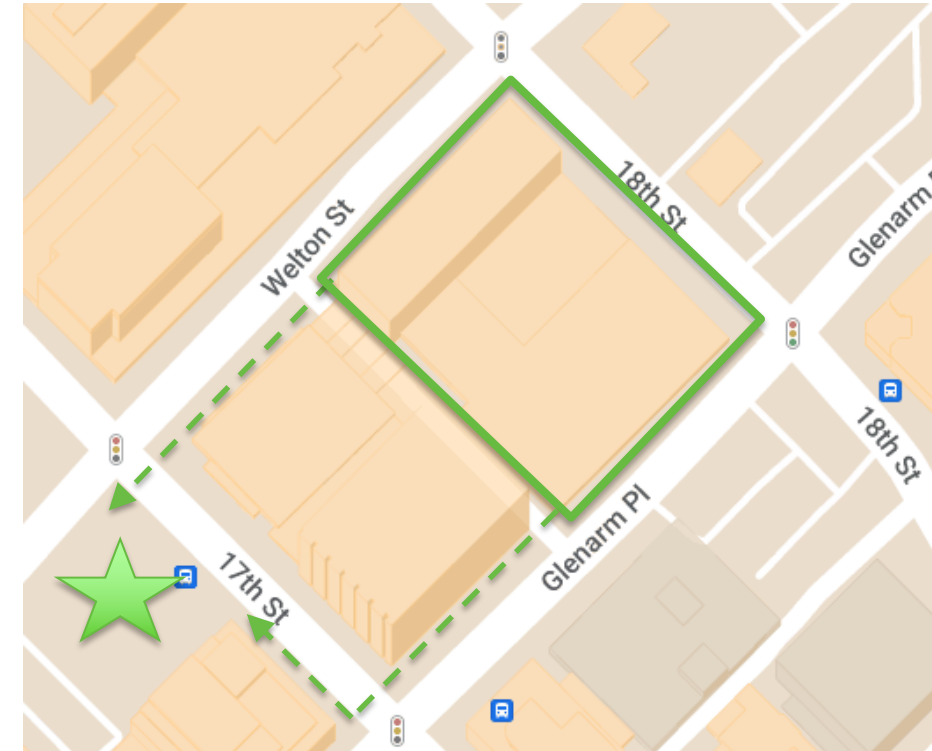
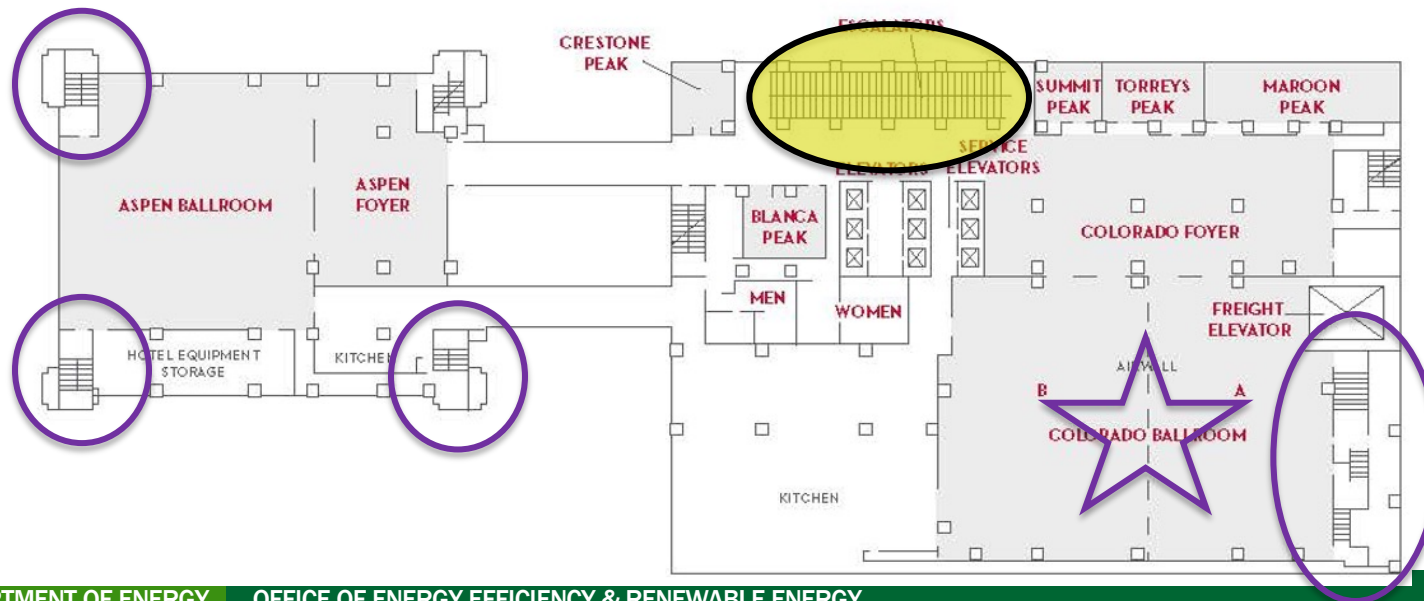
In the event of any emergency

- PA will make an announcements (recorded, then live)
- Stairs at end of corridors, follow lighted signage

3rd Floor



2nd Floor



- Muster point 17th and Welton (Hotel Staff will direct at exits)

WIFI Information

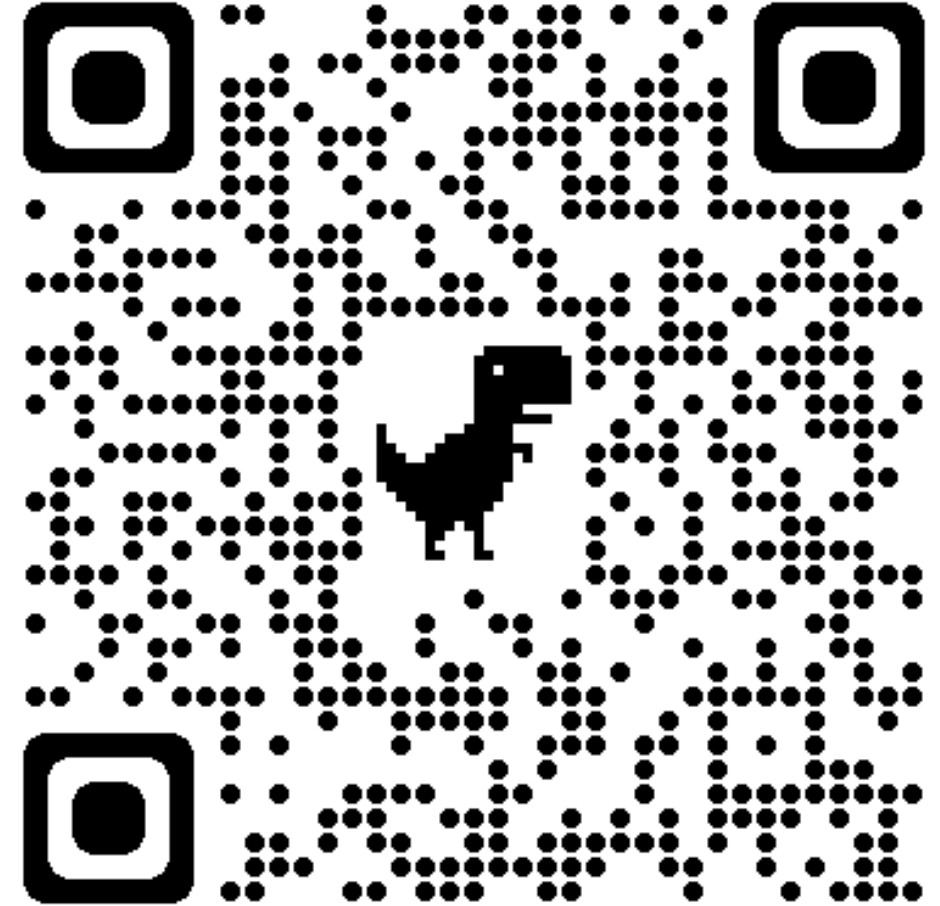
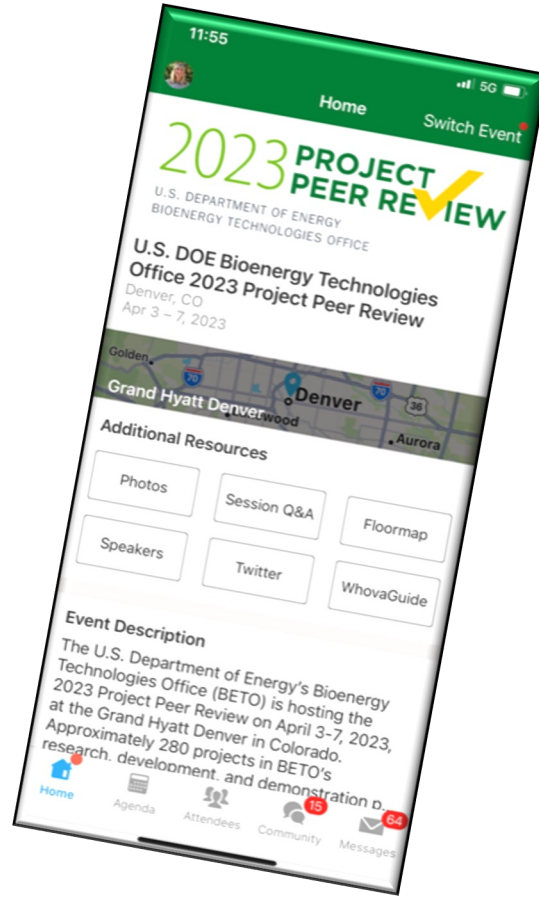
Network Name: Hyatt_Meeting

Password: BET023

Technical Issues:
Please visit the Peer Review
Registration Desk

Conference App - Whova

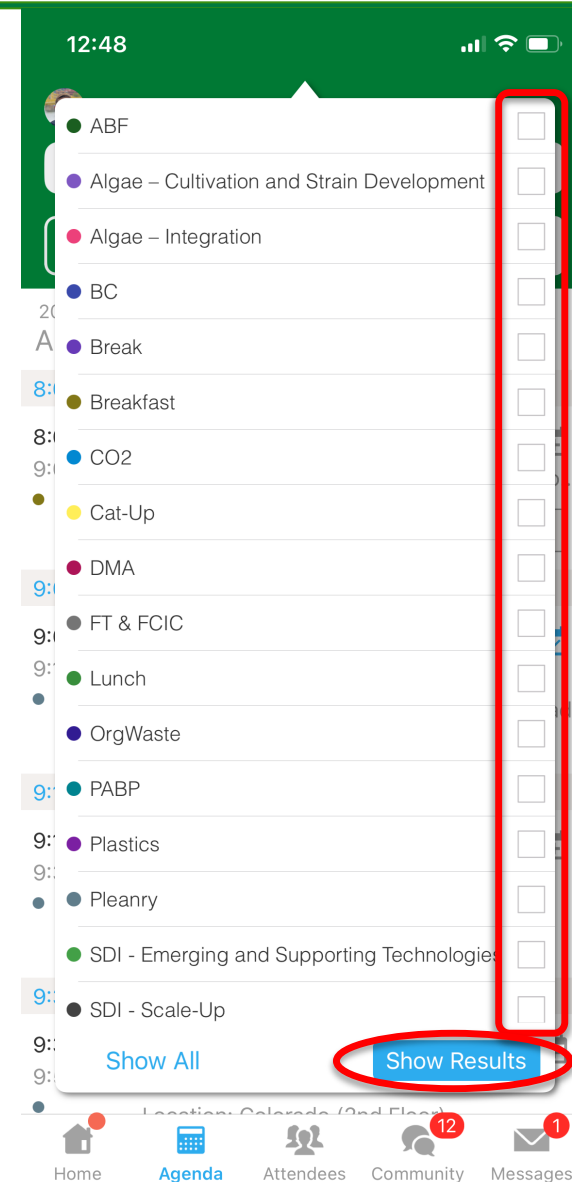
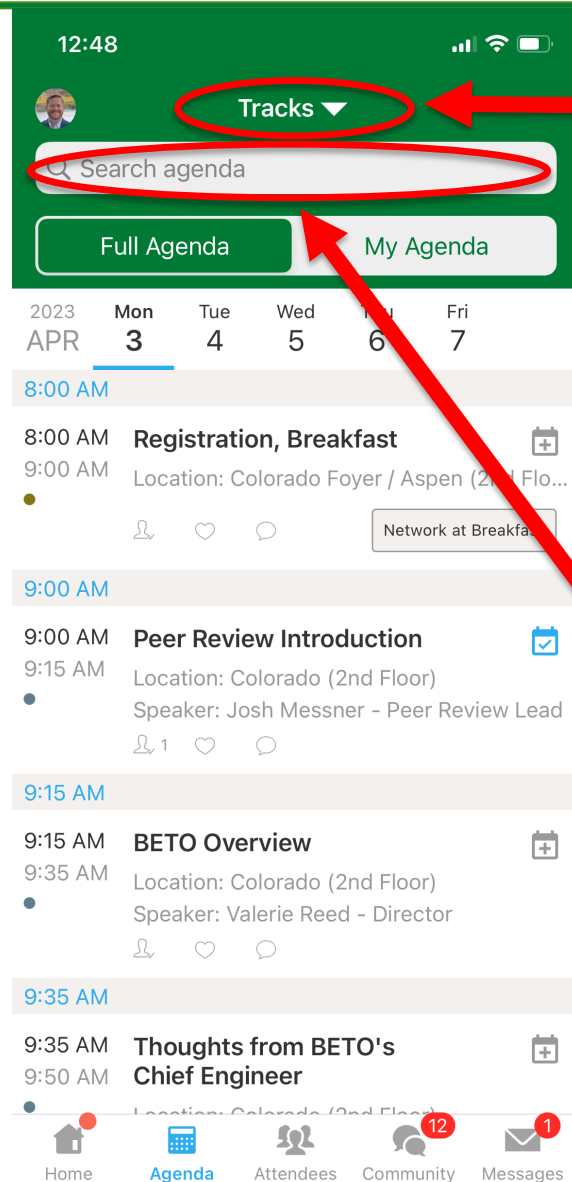
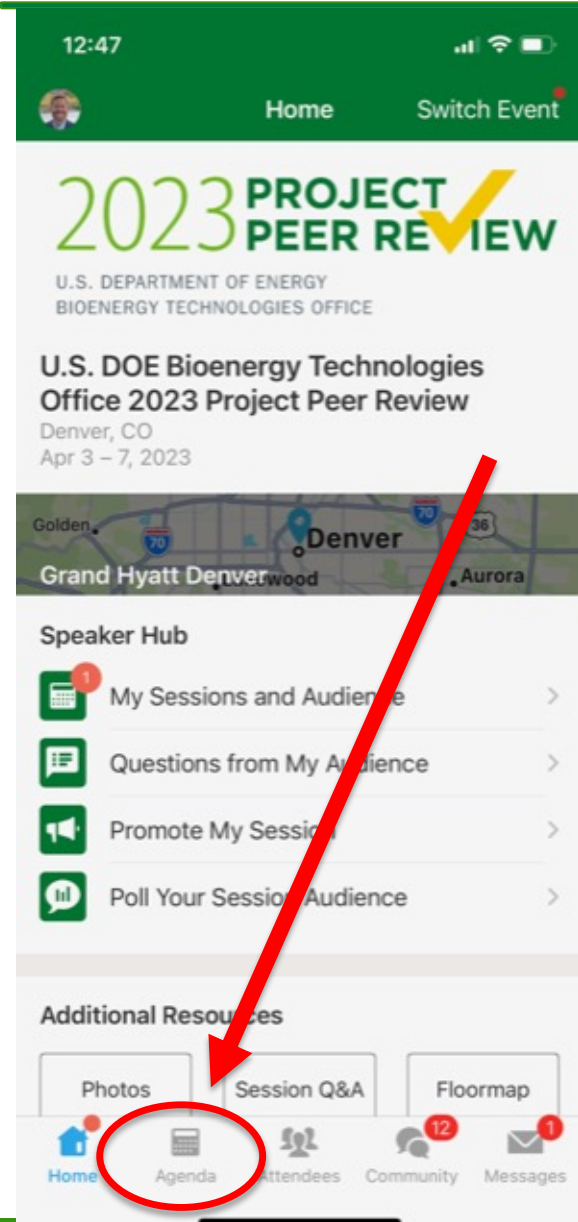
- Agenda
- Floor Map
- Announcements
- Speaker Info
- Networking
- ...and MORE!



CODE: **o7rooo6umd**

Conference App – Whova: Finding Agenda

o7rooo6umd



Peer Review Overview

External, Independent Reviewers assess and publicly report on:

“if the projects are being conducted well”

“if the appropriate projects are being funded”

Individual Projects:

- Approach
- Impact
- Progress

Technology Areas:

- Strategy
- Implementation

Peer Review Outcomes

- Independent, transparent, and actionable feedback
 - BETO will use in project and portfolio management
 - Projects are encouraged to incorporate into plans
- All presentations will be available for download
- Final Report will be published 6 – 12 months later



Review Session Format

1. BETO Session Leads:

- Present Technology Area strategy and portfolio make up

2. Project Performers:

- Present per a template tailored to the Review Criteria

3. Panel of Reviewers:

- Initiate Q&A

4. Questions from audience, time permitting



Peer Review – By the Numbers

315

Projects

\$700M+

In Funding

11

Technology
Areas

Not Presenting: Small Business Innovation Research (SBIR)

- BETO funds ~\$8-9 million per year in SBIR/STTR Phase I & II awards
- Highlight: BETO initiated and ran 3 years of topics to broaden participation, focused on community-driven energy solutions.
 - Recruited 7 other DOE offices to participate
 - Funded 10 projects (FY21 & FY22, FY23 selections TBD): 5 first-time awardees, 4 woman-owned, 4 HUB zones
- Other topics FY21 – FY23:

Phase 1 Released	Topic Title
FY23	Agricultural Decarbonization through Alternate Proteins and Amino Acids to Reduce Livestock-Associated Emissions
	Low-Carbon Liquid Biofuels for the Aviation, Maritime, Rail, and Medium-to-Heavy Duty Transportation Sectors
	Decarbonization and Biomanufacturing
FY22	Increasing the Algal Portion of Fuels and Products
FY21	Improving Plastics Compatibilization for More Efficient Recycling
	Cultivating a More Competitive Bioeconomy Through Strengthening Small Business Workforces

Not Presenting: Technology Commercialization Fund (TCF)

TCF utilizes 0.9% of DOE funding to mature energy technologies with potential for high impact.

- Annual National Laboratory Call for proposals to **advance technology-specific IP to market.**
- Two Topic Areas:
 - Topic 1: Individual FFRDC or Team Partnership, \$100 – \$250k, 6 – 18 months
 - Topic 2: Commercial Team Partnership, \$250 – \$1,500k, 12 – 36 months
- Currently **24 active projects**, approx. \$13M in Federal Funding
- **Examples:**
 - Scale-up and Business Aviation Test Flight of DMCO High-Performance Sustainable Aviation Fuel (LBNL)
 - Novel biogas bioreactors for energy recovery at small-scale wastewater treatment facilities (LLNL)

Agenda At-A-Glance

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Advanced Algal Systems	Advanced Algal Systems		Biochemical Conversion & Lignin	Biochemical Conversion & Lignin
Agile Biofoundry	Agile Biofoundry	Agile Biofoundry	Catalytic Upgrading	Catalytic Upgrading
Data, Modeling, & Analysis	Data, Modeling, & Analysis	Data, Modeling, & Analysis	CO ₂ Utilization	CO ₂ Utilization
Feedstock Technologies	Feedstock Technologies	Feedstock Technologies	Feedstock Conversion Interface Consortium	Feedstock Conversion Interface Consortium
Performance Advantaged Bioproducts	Performance Advantaged Bioproducts	Performance Advantaged Bioproducts	Performance Advantaged Bioproducts	Performance Advantaged Bioproducts
Systems Development & Integration	Systems Development & Integration	Systems Development & Integration	Organic Waste Conversion	Organic Waste Conversion

Plenary Overview

Day 1 – MONDAY, APRIL 3, 2023

Start Time (MT)	End Time (MT)	Title	Speaker
8:00 AM	9:00 AM	<i>Registration, Breakfast</i>	
9:00 AM	9:15 AM	Peer Review Introduction	<i>Joshua Messner - Peer Review Lead</i>
9:15 AM	9:35 AM	BETO Overview	<i>Valerie Reed - Director</i>
9:35 AM	9:55 AM	Data Modeling and Analysis Overview	<i>Jay Fitzgerald - Chief Scientist</i>
9:55 AM	10:10 AM	<i>Break</i>	
10:10 AM	10:30 AM	Renewable Carbon Resources Overview	<i>Nichole Fitzgerald - Program Manager</i>
10:30 AM	10:50 AM	Conversion Technologies Overview	<i>Kevin Craig - Program Manager</i>
10:50 AM	11:10 AM	Systems Development and Integration Overview	<i>Jim Spaeth - Program Manager</i>
11:10 AM	11:25 AM	Thoughts from BETO's Chief Engineer	<i>Reyhaneh Shenassa - Chief Engineer</i>
11:25 AM	11:35 AM	Diversity Equity and Inclusion (DEI) Minute	<i>Anne Starace - NREL</i>
11:35 AM	11:50 AM	EERE Joint Office Priorities	<i>Gayle Bentley - Technology Manager</i>
11:50 AM	1:00 PM	<i>Adjourn for Lunch and move to Technology Area Breakouts</i>	